What is claimed is:

1. A method of coupling optical waveguides, said method comprising the steps of:

(i) providing at least one pair of waveguides located such that (a) light radiation propagating through one of said waveguides will be at least partially coupled to a corresponding waveguide and, (b) said waveguides are separated by a gap of about 2μm to about 500μm long; said waveguides having dn/dT that is larger than 0.0/C;

(ii) filling said gap with a photo-polymerisable composition, said composition having dn/dT of $-2x10^{-4}$/C to $-4x10^{-4}$/C;

(iii) providing simultaneous photo-radiation through said waveguides, wherein said photo-radiation photo-polymerizes said composition, thereby creating (a) a first region bridging between said waveguides, said first region having a first index of refraction; and (b) a second region encapsulating said first region, said second region having a second index of refraction, such that said first index of refraction of said first region is at least 0.1% higher than said second index of refraction; and

(iv) curing the remaining composition, while retaining an refractive index difference of at least 0.1% between said first region and said second region.

2. The method according to claim 1, wherein said photo-radiation is UV light.

3. The method according to claim 1, wherein said photo-radiation is at a wavelength λ, where $180nm < \lambda < 400nm$.

4. The method according to claim 3, wherein $300nm < \lambda < 400nm$.

5. A method according to claim 3, wherein said method includes a pre-curing step, said pre-curing step including flooding the entire gap with UV light for 1 sec to 1 hour.

6. A method of claim 1, wherein said method includes a step of thermal postcurring, said step including heating waveguides at temperatures between about 70°C and about 250°C.

7. A waveguide device comprising:

(i) at least one pair of waveguides located such that (a) light radiation propagating through one of said waveguides will be at least partially coupled to a corresponding waveguide and, (b) said waveguides are separated by a gap of about 2μm to about 500μm, said waveguides having dn/dT that is larger than $0.0/C^{O}$;

(ii) another waveguide connecting said pair of waveguides, said another waveguide having dn/dT of $-2x10^{-4}/C^{O}$ to $-4x10^{-4}/C^{O}$.

8. A waveguide device according to claim 7, wherein said pair of waveguides are optical fibers.

9. A waveguide device according to claim 7, wherein said waveguide device is a planar waveguide device that includes (i) a plurality of waveguide pairs separated from one another by a trapezoidal gap, wherein said trapezoidal gap includes a plurality of

waveguides connecting said pairs of waveguides; said plurality of waveguides having lengths that vary from one another.

10. A waveguide device according to claim 7, wherein said waveguide device provides a plurality of narrow band optical signals each corresponding to one of a plurality of output ports, including a center signal provided by one of said ports, said center signal characterized by a predetermined wavelength and, said device is athermalised so that $\Delta\lambda c<0.01/°C$, where λc is said predetermined wavelength.

11. A waveguide device according to claim 7, wherein said gap separation is between 5μm and 200μm.